

# **DETACHABLE FOLDING CLOTHESHORSE**

## **BACKGROUND OF THE INVENTION**

### **1. Field of the Invention**

The present invention relates to a clotheshorse, and more particularly a folding clotheshorse which can be assembled or disassembled quickly and easily.

### **2. Description of Related Art**

A conventional folding clotheshorse has a seat with a plurality of slots, and a plurality of arms respectively and pivotally mounted in the slots. The seat can be directly attached to a clothes rod. When not in use, the arms can be pivoted upwards to fold the clotheshorse for reducing the size of the clotheshorse. In use, the arms are pivoted downwards for airing wet clothes.

The conventional folding clotheshorse has the following shortcomings:

1. Because the arms are pivotally mounted in the slots and a user must detach the arms from the seat with a great effort, it is inconvenient to replace these arms with other types of arms.

2. When exposed to the sunshine for a long time, the clotheshorse made of plastic material will deform and become brittle whereby the using life of the clotheshorse is short. Thus, when not in use, the clotheshorse should be put in room and shielded from sunlight. However, because it is difficult to detach the arms, the non-collapsed clotheshorse with a large overall size will occupy a great amount of space.

3. Even if folded, the arms are not positioned or fastened, so they still will be freely pivoted downwards by the users who do not exercise enough care.

Therefore, the invention provides a detachable folding clotheshorse to

1 mitigate or obviate the aforementioned problems.

## 2 SUMMARY OF THE INVENTION

3 The main objective of the present invention is to provide a folding  
4 clotheshorse which can be quickly and easily detached for storing.

5 Other objectives, advantages and novel features of the invention will  
6 become more apparent from the following detailed description when taken in  
7 conjunction with the accompanying drawings.

## 8 BRIEF DESCRIPTION OF THE DRAWINGS

9 Fig. 1 is an exploded perspective view of a detachable folding  
10 clotheshorse in accordance with the invention;

11 Fig. 2 is a schematic view showing a first step of assembling an arm in a  
12 seat of the clotheshorse in Fig. 1;

13 Fig. 3 is a schematic view showing a second step of assembling the arm  
14 in the seat of the clotheshorse in Fig. 1;

15 Fig. 4 is a top view of the clotheshorse in Fig. 1;

16 Fig. 5 is a schematic view of the clotheshorse being attached to a  
17 clothes-airing frame;

18 Fig. 6 is a schematic view showing the arm being moved downwards;

19 Fig. 7 is a perspective view of another embodiment of the arm in  
20 accordance with the invention; and

21 Fig. 8 is a schematic view showing the clotheshorse with the arms in Fig.  
22 7 being attached to the clothes-airing frame.

## 23 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

24 With reference to Figs. 1-3, a clotheshorse in accordance with the

1 invention is composed of a seat (10) and a plurality of arms (20).

2 The seat (10), with a top side, a bottom side and an outer periphery, has a  
3 plurality of slots (11) defined therethrough from the top side to the bottom side,  
4 and separately arranged along radial directions of the seat (10). The seat (10) can  
5 have a semi-circular, circular, or polygonal cross section. In this embodiment,  
6 the cross section of the seat (10) is semi-circular.

7 Each of the slots (11) has a notch (111) defined at the outer periphery of  
8 the seat (10), a supporting edge (112) formed beneath the notch (111), and at  
9 least one protrusion (113) formed at an inner wall adjacent the notch (111). In  
10 this embodiment, each of the slots (11) has two protrusions (113) respectively  
11 formed at two opposed inner walls adjacent the notch (111), as specially shown  
12 in Fig. 4.

13 With reference back to Figs. 1-3, the seat (10) is securely mounted on a  
14 tube (12), and an adjusting connector (121) is provided at a lower end of the tube  
15 (12).

16 The arms (20) are respectively and pivotally mounted in the slots (11) of  
17 the seat (10). Each of the arms (20) has at least one channel (21) longitudinally  
18 defined at a side of the arm (20) facing the at least one protrusion (113) of the  
19 respective slots (11). In this embodiment, the arm (20) has two channels (21)  
20 respectively defined at two sides thereof and corresponding to the two  
21 protrusions (113). The channels (21) each have an opening (211) defined at a  
22 rear-top end thereof, and a stop (212) formed at a middle portion thereof. Two  
23 clips (22) are formed on a top side and respectively at a front and rear ends of the  
24 arm (20) for fastening clothes.

1           With reference to Fig. 2, in assembling, the arm (20) is uprightly inserted  
2 into the slot (11) with the two protrusions (113) respectively passing through the  
3 openings (211) and entering into the channels (21). With reference to Figs. 3-4,  
4 therefore, the arm (20) can be pivoted downwards about the protrusions (113)  
5 received in the channels (21). When the arm (20) is in a substantially horizontal  
6 position, a bottom side of the arm (20) abuts the supporting edge (112) of the seat  
7 (10), so the arm (20) is positioned in the slot (11).

8           The clotheshorse of the invention can be directly hung on a clothes bar  
9 in a terrace. Otherwise, with reference to Fig. 5, the clotheshorse is installed on a  
10 clothes-airing frame (30) by fastening the tube (12) of the seat (10) on a post (31)  
11 of the clothes-airing frame (30). The adjusting connector (121) is tightened to  
12 secure the seat (10) on the post (31). When the arms (20) are extended, clothes  
13 can be hung on the arms (20) and gripped by the clips (22) for airing.

14           When not in use, with reference to Figs. 3 and 6, the arm (20) can be  
15 pivoted upwards from the extended position to the upright position, and moved  
16 downwards until the stops (212) abut the respective protrusions (113) to reduce  
17 the size of the clotheshorse. In the folded status, it is impossible to freely pivot  
18 downwards the arms (20) even if a user touches the arms (20) unintentionally.

19           In detaching the arms (20), with reference to Figs. 2 and 3, the arm (20)  
20 is first pivoted upwards to the upright position to align the protrusions (113) with  
21 the openings (211), and moved transversally to disengage the protrusions (113)  
22 from the channels (21). Thus, the arm (20) is detached from the seat (10).

23           With reference to Figs. 7-8, in another embodiment of the present  
24 invention, the arm (20') has a ring (23) formed at the front end thereof. When

1 two clotheshorses of the invention are mounted on the clothes-airing frame, a  
2 clothes bar (23) or a clothesline (not shown) can be attached between two  
3 opposed rings (23) of the two clothes bar (23) for hanging more clothes.

4 Therefore, the clotheshorse of the invention has the following  
5 advantages:

6 1. It is very convenient and easy to attach and detach the arms to/from  
7 the seat, so the user can quickly install the arms with or without the ring to use  
8 the clotheshorse according to the user's demands.

9 2. Because it is very simple and easy to detach the arms, the clotheshorse  
10 can be quickly disassembled for storing.

11 3. The arms can be folded in the seat when the clotheshorse is not in use.

12 It is to be understood, however, that even though numerous  
13 characteristics and advantages of the present invention have been set forth in the  
14 foregoing description, together with details of the structure and function of the  
15 invention, the disclosure is illustrative only, and changes may be made in detail,  
16 especially in matters of shape, size, and arrangement of parts within the  
17 principles of the invention to the full extent indicated by the broad general  
18 meaning of the terms in which the appended claims are expressed.